

Scrapman Battery Charger Manual (Revision 0)

The ScrapMan battery charger is a *switch-mode* unit providing 3 stage charging at up to 10A @ 12V DC from an AC supply ranging from 100 – 240V. Features include LED Status indicators, Reverse and Short Circuit protection.



The connector on the front panel is a **MIL spec**, 2 way plug which will mate directly with the 2 way cable socket on the **Battery Pack** cable.

There are four LED's on the front panel and the top **RED** one indicates Power **ON**. There are three STATUS LED's which show the state of charge of the connected battery.

GREEN	Charged (Ready)
AMBER	Charging
RED	Needs Charging



The cable from the Battery Pack includes an in-line *automotive* Fuse-Holder with 7.5Amp fuse fitted in the +ve feed (**RED Wire**) and a **MIL spec**, 2 way cable socket for connection to the trailer and the battery charger.

The fuse is rated at 7.5A ONLY to allow the charger to deliver maximum current.

Normal drain current by the weighing system is typically 0.5A – 0.75A maximum

The connectors are *Bayonet* style and are polarised to ensure correct connection and once engaged, the knurled cover must be twisted clockwise into position to lock the in place.

The 100V – 240V AC input **IEC** connector is on the rear face with the **On / Off** switch. There are no user-serviceable parts or controls inside the charger; in case of fault, the unit should be returned for repair.



INSTRUCTIONS FOR USE

Make sure the charger is switched **OFF**.

Connect the battery pack connector to the MIL spec connector on the front panel before switching **ON**

Two **RED** LED's will illuminate, one to indicate the power is on and the second LED to indicate that the initial 'bulk' charge is taking place.

The **YELLOW** LED will be illuminated to indicate that the battery is now charging at a constant voltage and that it is about 80% charged.

The **GREEN** LED shows, the charger is in 'float' and the battery is charged. The charger can be left connected, on charge until the battery is required for use.

When you are ready to use the battery - **switch off BEFORE disconnecting the charger from the battery.**

NOTE: If the battery charger is connected to the battery incorrectly the charger will not charge the battery but the RED LED will still illuminate.

N.B

If the battery has become too heavily discharged (say 10.0V or less) the charging **WILL NOT START** and it may be necessary to use a less sophisticated charger to get some voltage increase to allow normal charging to take place.

WARNINGS:

AC input only – see rating label on the charger for details.

If the AC power lead is damaged the appliance should not be used.

Batteries may emit an explosive gas mixture during charge; charge in a well-ventilated area. Avoid creating sparks or flames and smoking banned from the area.

For indoor use ONLY – do not expose to rain or moisture.

DO NOT attempt to recharge non-rechargeable batteries. They may explode.

Ensure that the charger supplied has the correct settings for the make and type of battery used.

This appliance must be earthed.

Procedures to ensure long battery life.....

Battery Life will be considerably shortened if the voltage is allowed to fall significantly below 12.00 Volts before recharging. Allowing the voltage to fall as far as 9 or 10 Volts may result in permanent and irreversible damage requiring battery replacement.

The Battery voltage is monitored by the Trailer Weighing System computer and with appropriate external software is available for transmission to Tractor and Crane Cabs as well as a host system to give adequate notice of falling battery voltages and time to replace with fresh.

Health & Safety Issues relating to Lead-Acid batteries

Lead-Acid batteries are a potential hazard and care must be taken in their handling.

Each battery weighs 18Kg and therefore care must be taken lifting and lowering these batteries to and from the trailer to prevent spinal or any other physical injury. Similarly, care must be taken when removing or replacing batteries in the rack at the charging facility.

Since batteries contain sulphuric acid, eye protection as well as industrial rubber gloves should be worn at all times during handling. Any acid spillage should be immediately washed with fresh water and medical attention sought.

Great care must be taken to ensure that no metallic or any conducting material comes into simultaneous contact with the +ve and –ve terminals during handling. This will cause a short-circuit and could possibly result in a battery explosion.